1:Williams E,G-5 (1923-1925) 1930
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227 In the more usual method the hook is made of sago thorns or those of the plant called *sinegi* (apparently a kind of palm). The line is first threaded through an earthworm by means of a thin sharp sliver. Then three thorns (about 1 inch long) are bound together by means of the line itself and thrust into the worm so that the points project upwards, and thus

FIG. 12. Worm Bait and Hook.

constitute a hook. Line fishing is done by hand and the bait is allowed to dangle in the water.

226 *Poisoning.* The last, but not the least important, of fishing methods is that of poisoning, which is practised by all tribes in the inland creeks and pools. The poison is usually [278] obtained from the vine *Anisi* (*Kanesi*, *Ainsi*), a variety of derris; though certain other poisonous plants with the native names *Ondoto*, *Pogera*, and *Imanya* are used, as well as the recently introduced chilli. Water is bailed out of the pool or sometimes run off by means of a race or gutter, and when it is sufficiently shallow the root of the *Anisi* is pounded on a log. It exudes a highly poisonous milky fluid which permeates the water and brings the fish stupefied to the surface.

Sago Making

252 Among the River People sago is a never-failing food 262 supply, for on the lower reaches of the rivers large tracts of swamps are, I believe, not even explored by the natives, and their resources are but lightly tapped. Inland, where it [423] is comparatively rare, trees are definitely owned and husbanded. Sago, however, is not a favourite food with the Orokaiva, and it is for the most part when his taro gives out that he resorts to it; and since this is likely to be in the midst of a partial drought, when the swamps themselves may have

1:Williams E,G-5 (1923-1925) 1930
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vomica. But in not a few cases it appears that the potency of the medicine consists in its smell. Thus we find a man suffering from a severe cold who is taking as medicine a bark called *Siganapa*. This, which is strongly scented, is boiled and the decoction added to a stew which the patient eats. According to the explanation, the sickness inside the man's stomach will smell the *Siganapa* and go away; so that in such a case we may regard the *sivo* as typically expulsive. Such a remedy need not be taken internally; it is enough to smell it in one's nostrils. So a man smells scented leaves for stomach-ache; and I have seen another garlanded about his shoulders and waist with strands of a creeper called *Toibo*, which gave out an abominable smell, resembling that of tree-bugs. Its virtue consisted in its smell (*mume*), by which the sickness was 'frightened away'. Another effective remedy is the fragrant lemon-grass (*Dariva*).

The same idea—that of driving out the sickness by smell—is at the bottom of a process called *jura*, which consists of fumigating the sick (*vide* also pp. 200–1). In one case which I saw the subject had been suffering with headache and general pains. His friends prepared a mixture in which seven kinds of leaf or bark were added to coco-nut milk in a *tova* or wooden dish. The patient descends from his house and squats over the *tova* dish; a hot stone has been held ready in a coco-nut husk and is now dropped into the mixture; a pandanus mat is thrown over all and the patient remains underneath enveloped in steam. Principal among the seven ingredients was *Toibo*, the extremely evil-smelling creeper mentioned above, and all the remaining six had a more or less decided odour.[1]

The commonest and simplest of expulsive treatments is one of a very different kind, known as *bumbari*, 'taking away'. One or more doctors operate on the patient, who lies on his

[1] In another case of this fumigating process, the technique was the same, but the principle apparently quite different. If a man's sickness were diagnosed as the result of eating a 'bad' snake, some snake bones would be put into the *tova* with water and the hot stone added. The patient would sit in the rising steam, and, if the diagnosis were correct, the treatment would be effective. If the sickness were due to eating a 'bad' banana, then banana skins would take the place of snake bones. I did not see this process, nor any similar in principle, carried out, so the information may not be wholly reliable. No satisfactory explanation was offered.

2: Williams E, G-5 (1923-1925) 1928
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represents the more usual Orokaiva fashion) it is as if we should pour a dose of cough medicine into a man's hat in the hopes of curing him. In the former and less usual case it is as if we should pour it down his throat, or with equal assurance down his back.

It is perhaps possible that all the symbols of magical procedure should be comprised in these two categories without stretching them too widely, i.e. they might be classified as Similarity Symbols and Contact Symbols, which correspond with Frazer's laws of Homoeopathic Magic and Contagious Magic. But it must be remembered that any kind of association, sometimes a strangely remote one, may invest an object with a symbolic character. I may give a few final examples to show how faint the association may be.

The use of tree-leaves is very characteristic of Orokaiva magic. They very often play the part of the specific, i.e. the medicine proper, the really potent but still inscrutable factor; but very often too their symbolic properties can be explained. A witness drew my attention to the damp, cold feel of a certain leaf used in the making of wet weather. Another leaf was used by a magician who had power to calm the seas. He would cry out to the waves to die down and cast into the water a leaf of the *Ombi* tree. The efficacy of that particular leaf lay in the fact that it wilted within a few moments of being plucked. There were two cold-weather medicines (not, I believe, widely known). One was called *Ino-etu*, or 'Dog-tail', and the virtue of *Ino-etu* was merely in its name. For is not the dog, with its shivering and crouching by the fire, peculiarly sensible of the cold? The other was the delicate leaf *Kigira* which partly closes toward sunset as if it were shrinking or huddling itself up from the cold of evening. *Kigira*, by the way, was used elsewhere for quite another purpose. The same trait, viz. of closing at dusk, travelling in another associative channel, made the plant a useful soporific for babies, because it appeared to sleep as babies should sleep. The plant picturesquely

2: Williams E, G-5 (1923-1925) 1928
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named *Sowai-gapu*, or 'Ghost-wings', was recommended by the same property for the same purpose.

Perhaps the best example is provided by the ill-defined Orokaiva custom which resembles the *couvade*. Very often a husband, after the birth of his child, will avoid working in the garden. The reason is perhaps his fear of a misadventure which might in some vicarious manner affect the child; and two independent informants have given me the same curious explanation. In clearing the gardener would lay hold of the tender sapling and, as he raised his sharp axe to strike a severing blow, there would flash through his mind a horrifying simile—the neck of his new-born child. No wonder a solicitous father should stay at home!

So much for the symbols in magical procedure. They have been classified, after the laws laid down by Frazer, into Similarity Symbols and Contact Symbols. A much more detailed classification would be possible but perhaps unnecessary. The essential fact is that any association, even the remotest, may be sufficient to turn an object into a symbol, to make it personify or represent some person or object or, generally speaking, some factor in the result at which the magic-maker aims.

4. *The Logic of Magic*

It has been assumed throughout the foregoing pages that magic is in the beginning a matter of impulse. But it is a fact beyond dispute that the native practitioner does to some extent at any rate believe in his magic. It may not be correct to say that there is a universal primitive belief that 'like produces like', or that 'things which have once been in contact with each other continue to act on each other at a distance after the physical contact has been severed'. However, it is at least true that the magic-maker commonly feels that his procedure, an anticipatory representation of the result he aims at, does in some way conduce toward the realization of that result.

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However, it is possible that the magic-maker, particularly the sorcerer, may sometimes succeed in bringing about the result he aims at. This might happen in either of two ways—directly, by the use of really harmful substances, or indirectly, by suggestion. If he use any harmful substance which has a demonstrable effect on the victim, it may fairly be argued that from our point of view he has abandoned the role of sorcerer for that of poisoner; but we may proceed to discuss this aspect even if by strict definition it should be excluded from the subject.

It is often maintained that natives hold the secret of many genuine poisons, and sometimes that the sorcerer is an out-and-out poisoner. The principal drawback to this view is that those who hold it are commonly unable to produce or identify the poisons which the sorcerer is supposed to use. The same is true of those abortifacient and contraceptive drugs which in the opinion of some observers *must* belong to a native pharmacology which is kept strictly secret from the prying European. One would be disposed to place some credence in this latter opinion if only its exponents could bring to light one really efficacious example. With regard to the poisons which are supposed to be used in sorcery one is tempted to be almost equally sceptical.

There is little doubt that the bush could furnish a number of vegetable poisons of a more or less dangerous nature, and no doubt that the native knows how to avoid some kinds of food which are injurious. But if we are to suppose that any of these substances are used in poisoning it will be necessary to assume that they are of a sufficiently deadly character to be effective in small and unnoticeable quantity. One may mention several of the better-known products which are recognized as poisons by the Orokaiva. First and foremost there is the vine *Asisi* (which belongs to the genus *Derris*), known as 'New Guinea Dynamite' because it is used for killing or stunning fish just as real dynamite is sometimes used by those who care little for the law of the land and less for the ethics of angling.

2: Williams E, G-5 (1923-1925) 1928
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824 278 [762] the ethics of angling. The roots of this plant (and in less degree the leaves and stem) yield a white sap which has strong poisonous properties, and which in many known cases has been made a means of suicide. The suggestion, however, that this might be added to the food of an enemy has been laughed to scorn whenever I have made it. The intended victim, I have been assured, would immediately notice the taste and smell—slight but distinctive—of the plant, and would refuse to eat the food.[1]

754 278 824 The native evidence as to the vine *Anisi* has been somewhat conflicting. Some have classed it outright as *kai*, i.e. they have included it among those evil specifics which have been dealt with in section 5; others have said it is not *kai* because its fatal or morbific properties are perfectly obvious and above board. I have one instance in which *Anisi* was supposed to be added to the victim's food. In this case the root was crushed up and first entrusted to a woman during her menses, who was to sit on [841] it. Being contaminated with menstrual blood it was dried and burnt to ashes in a fragment of pottery. The resultant powder was sprinkled like *aso*, i.e. ash salt, over the food of the victim. My note does not record whether the victim died, and I have no explanation of the part which the menstrual blood was to perform. It remains somewhat doubtful whether the *Anisi* was present in the right form or quantity to be fatal. I have another instance in which *Anisi* was used in sorcery, but this time it was not introduced into the victim's stomach but merely into the bamboo 'bottle', where maybe its deadly qualities worked just as well. In fact one might tell when *Anisi* had been used against a man in this way: his dead eyes had a way of bulging out of his head like those of a poisoned fish.

278 824 Another recognized poison is the cycad called *Puga*. The fruit must be allowed to remain in running water for

[1] Derris root, i.e. of *Derris elliptica* Bentham (Leguminosae), is, however, said to 'kill fish in a dilution of 1 to 25,000 of water'. Vide Castellani and Chalmers, *Manual of Tropical Medicine*, p. 188.

2: Williams E, G-5 (1923-1925) 1928
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a considerable time until its toxic properties are purged away, when it becomes a favourite food. I have never heard, however, of the young cycad fruit being used as a poison. The same is the case regarding the bark *Tangiri*, in which the presence of what I take to be Prussic acid is discernible by its smell. The only use of *Tangiri* within my knowledge is that of fumigating a man's head of hair. The bark is heated, and when it is emitting a cloud of pungent smoke is clamped upon the infested head of the patient.

Lastly, there is the *Pekamba*. This closely resembles the plant known in the Northern Division as *Punjaru*, remarkable for the gigantic flower which, when it passes maturity, breaks up in horrible and vile-smelling decomposition. It is not this decomposing substance, however, but the root of the related plant *Pekamba* (possibly also of *Punjaru* itself) which acts as a very strong corrosive poison. This again has been used in suicides, and further it provides one of the conventional means of self-castigation in time of great grief. A mourner on his way to a funeral will pluck up a *Pekamba* by the roots, and as he enters the wailing village will put his teeth into it and gnaw it until some less distracted or perhaps less theatrical mourner snatches it away. Should any be swallowed the result, I am assured, would be fatal. One old man of my acquaintance had chewed the *Pekamba* too freely in the forgetfulness of his grief and was in consequence ill and hardly able to eat for a period which he estimated at 'six weeks'.

There are no doubt other poisons of which I have no knowledge. But with those that have been mentioned it is possible that the plea advanced by the natives themselves regarding *Anisi* is equally applicable, i.e. they are not used because in fatal quantity they would be detected by the suspicious nostrils or palate of the victim. In fine, however, when we consider the countless variety of specifics which are supposed to possess deadly properties and which in known cases prove to be utterly

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754 devoid of any real efficacy, and when we consider the
278 devious modes of application (so seldom through the
824 mouth) which in our eyes rob them of any chance of being effective, we may be justified in regarding the imputed use of poisons in native sorcery with the greatest scepticism. One's faith in native medicines, good or evil, is likely to diminish as example after example comes to light in which the efficacy turns upon some more or less fantastic association. My own opinion—which merely awaits some tangible evidence to alter it—is that the use of really effective poisons by Orokaiva sorcerers is negligible.[1]

754 Having dealt with the subject of direct harm in native sorcery we may discuss the more serious possibility of the indirect harm of suggestion. While the ritual, the spells, and the specifics of the sorcerer, such as they are, may be intrinsically harmless, the mere impression on the victim that they are being operated against him may have a genuinely grievous effect. The impression may be almost groundless, and the imputed sorcerer entirely innocent; but it will be greatly strengthened by the possible pretences or actual threats of the sorcerer. Cases in which a man has faded away and actually died under the fear of sorcery are well authenticated in anthropological literature. While one has seen nothing of the kind among the Orokaiva, one is ready to give these accounts due credence. However, it would be possible to set too much store by this phenomenon, which has been called *thanatomania*. It must be extremely uncommon for a healthy man to fade away and die under the mere suggestion of sorcery. The usual way of the matter, I believe, is this. A man falls ill from some natural cause. He casts about him for the reason of his sickness, and straightway thinks of evil magic; his thoughts fly to some enemy; his friends endorse his

[1] R. Lister Turner (in *Man*, August 1924, No. 88) mentions several poisons which, he suggests, may be used in the kind of sorcery called *Vada* in the Central Division of Papua. The above-mentioned *Pakamka* is perhaps identical with Matoa of the Central Division, which he suggests is Dracunculus.

4: Chinnery & Haddon E-5 (ca. 1915)1917
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coast as far as the old Anglo-German boundary and for a long way up the rivers of the Kumusi Division. Moreover, the cult is still spreading. Needless to say, the Baigonas have to pay for their instruction. One or two men in a village go through a period of tuition, and, on their return, initiate the rest of the villagers, not into the positions which they themselves hold, but into a belief in their new powers. This is effected by a ceremony in which the people are smeared over with some stuff from the bush, and the Baigona gives each one a smack and sends him to wash in the sea. The ceremony gets its name from the "washing." Dr Copland King has seen Baigonas use massage on a patient. They massage the arms, for instance, down to the fingers, and then, as they say, pull Baigona out from the finger tips. The young men of the village, standing round the patient, sing a song, which seems to be the usual string of meaningless words. Only two recognised drugs are used, —viz. *Euphorbia pilulifera*, the "asthma herb of Queensland," which is burnt with the coral when preparing lime for chewing with betel-nut, and *E. Drummondii*, also used medicinally by Australian settlers, and eaten with paw-paw when chewing the nut. Various other plants are employed as drugs, but only such as are beneficial. All this was obviously a very subtle move on the part of Maine. How can the Government interfere in such circumstances? At the same time, the Baigona have powers of life and death, because if they do not choose to give the patient these drugs, or, in other words, if the patient does not pay enough for them, he dies; for the Papuan, like most savages, is peculiarly susceptible to impression, and can fall sick, or even die, without any corresponding physical cause. The Baigona does not work in his garden. He will not drink plain water, but only coconut milk. He pays more attention to dressing his hair and decorating his face with red paint than other people; he has not much else to occupy his time, as either from fear or in payment his village companions do his garden work for him. Very often during the evening in the village the Baigona goes into a fit, passing into a trance. It begins with violent shivering, after which the man falls to the ground and becomes insensible, uttering spasmodic bursts of rapid talk. His people cover him with a mat, and sit around listening and applauding. Dr Copland King has not been able to make sense of what he says on such occasions, and does not know whether the people understand it either. The main feature of the cult is the prohibition to kill snakes, crocodiles, monitor lizards, and